Seat No.: _____   Enrollment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
D.ARCH – SEMESTER - III • EXAMINATION – SUMMER 2017

Subject Code: 3336203   **Date: 29/04/ 2017**
Subject Name: Surveying and Leveling
Time: 02:30 PM TO 04:30 PM   **Total Marks: 50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Use of only simple calculator is permitted in Mathematics**

Q.1	**(a)**	Enlist the equipments required for chain and tape survey. And explain any two with fig.	**09**
	(b)	Explain indirect ranging with figure.	**09**
Q.2	**(a)**	Define: - Base line, survey line, tie line and check line.	**08**
	(b)	Draw a prismatic compass and show the names of the parts.	**08**

<div align="center">OR</div>

	(b)	What is difference between a prismatic compass and a surveyors compass.	**08**
Q.3	**(a)**	Find back bearings of the following fore bearings:	**08**

$45°, 107°, 213°, 309°$

	(b)	Find included angles of a traverse ABCDA from the following data. Apply check.	**08**

LINE	FB	BB
AB	43°	223°
BC	117°	297°
CD	205°	25°
DA	318°	138°

<div align="center">**OR**</div>

Q.3	**(a)**	Convert following W.C.B. to Q.B.:	**08**

$41°, 102°, 218°, 327°$

	(b)	Following readings were taken by a dumpy level. The 1st reading was taken on Bench mark of R.L. 50.00 m. Calculate arithmetic check. The instrument was shifted after 3rd reading. Find R.L.'s of all points by H.I.Method 0.40,1.25,2.30,0.70,1.75,2.40 and 1.35.	**08**

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